SPECIAL REPORT

Health Care Steps Up to Social Determinants of Health: Current Context

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ABSTRACT

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As the articles in this Supplement demonstrate, the social determinants of health are a major focus for Kaiser Permanente and the broader US health care system. Mounting evidence of the impact of social determinants on people's health has stimulated a surge of activity among policymakers, health systems, and a growing number of social entrepreneurs to integrate health and social services and to find novel ways to finance those efforts. The question is no longer whether there is an appropriate role for the US health care system in addressing the social determinants of health, but what that role is, how to create the right policy context for innovation and how health care can partner more effectively with providers of social services to meet patients' most pressing needs given the fragmented, typically underresourced nature of the social sector.

INTRODUCTION

The landmark Whitehall study published in 1978, by Sir Michael Marmot¹ provided early, compelling evidence of the dose-response relationship between socioeconomic status and health outcomes in the British civil service. Since then, our understanding of the extent to which social, economic, behavioral, and environmental factors influence people's health has continued to grow. We now know that upwards of 70% of health outcomes are driven by factors beyond health care² and that poverty is associated with more years of lost life than smoking and obesity combined.³

Following on the work by McGinnis and Foege,⁴ who calculated the "actual causes of death,"—factors such as smoking, poor diet, and inactivity, which drive disease-related causes of death—Galea et al⁵ quantified the number of deaths attributable to social factors. They estimated that in the year 2000, approximately 423,000 deaths in the US were attributable to poverty, 245,000 were attributable to low educational status, 162,000 to low socioeconomic support, and 119,000 to income inequality.⁵ To a large extent, social and economic stressors also drive the so-called "diseases of despair": Suicide, alcohol abuse, and opioid addiction. These diseases are creating pain and suffering for millions of American families and leading to declines in life expectancy for certain segments of the population.⁶

On the front lines of the US health care system, clinicians experience every day how unmet social and economic needs serve as a barrier to adherence, limit treatment options, and shape the flow of clinical interactions. Prioritizing one's health

can be difficult under the best of circumstances, but it can be so much harder when people struggle with so many more pressing issues—challenges such as affording a safe place to live, tenuous employment, difficulty paying for healthy food, social isolation, and the stress of being a caregiver.

As a society, we seem to be misallocating our resources by underinvesting in social care. Bradley and colleagues⁷ have demonstrated how in the US, health care investments have displaced spending on social services, despite the higher health return on investment associated with the latter. The US is at the bottom of the pack of industrialized nations in terms of most measures of population health, but we are at the top in terms of how much we spend on health care relative to social services. In other words, we spend more and get less than countries who invest a smaller share of their total economic output on health care. The same holds true in the US at the state and county level. The good news is that public policy and the marketplace are both shifting to bring more attention and resources to addressing the social determinants of health in multiple ways—a shift that may have a profound impact on affordability, health, and well-being in the years to come.

POLICY CONTEXT

Public policy has encouraged health care organizations to focus on social determinants of health. Although there is a long history of policy efforts to encourage health plans and health systems "to go upstream," passage of the Affordable Care Act (ACA)⁸ in 2010 created an inflection point. First and most importantly, the ACA has extended coverage to more than 27 million Americans and reduced the uninsured rate to a historic low. This has allowed health systems, public health departments, and other stakeholders to focus additional resources and creativity on addressing the social determinants of health rather than filling gaps in coverage, and to move beyond disease management as the sole focus of their population health improvement efforts.

The ACA included provisions to shift payments from fee-forservice to value-based care, including bundled payments, capitation, and penalties for unnecessary readmissions. The ACA also created Accountable Care Organizations (ACOs) that facilitate the sharing of financial risk and accountability for patient outcomes among groups of health care providers. Collectively, these arrangements created incentives for treating the whole patient across broad episodes of care and over time. In so doing, they challenged health care providers to focus beyond specific conditions or diseases to provide more value to patients and public payers alike.

By authority established in the ACA, the Center for Medicare and Medicaid Innovation also established the Accountable Health Communities Model, developed specifically to test approaches to integrating health and social services. To date, 31 Accountable Health Communities demonstration sites have been funded. Each must screen and address a core set of 5 social needs: Housing instability, food insecurity, transportation needs, utility assistance, and domestic violence. Similar Accountable Health Communities initiatives have been launched by state governments in Vermont, Massachusetts, and California, where the state has been joined by private funders. The California Accountable Communities for Health Initiative explicitly requires funded efforts to incorporate complementary policy, systems, and environmental change strategies into their interventions. Since Interventions.

Under both new and existing statutory authority, state Medicaid agencies and Medicaid managed care plans have also been granted increased flexibility by the Centers for Medicare and Medicaid Services (CMS) to address enrollees' social and nonmedical needs. States have used this flexibility to classify social services as covered benefits under state Medicaid plans; launch Whole Person Care pilots; use incentives, "withholds," and value-based payments to encourage health plan investments in social interventions; and integrate social needs activities into quality improvement efforts. 11 This flexibility has also extended to Medicare managed care plans. Most recently, CMS issued guidance allowing Medicare Advantage plans to include some types of social services into supplemental benefit plans.¹² This follows an earlier change in payment rules that allows physicians to bill for assessing their patients' social needs as part of enhanced payments for coordinating the care of patients with chronic illnesses.¹³

Beyond new payment incentives, the ACA also required non-profit hospitals to conduct community health needs assessments and to develop community benefit implementation strategies every 3 years. These assessments are intended to guide hospital community benefit investments, which currently exceed \$63 billion. 14 As intended, this requirement has fostered increased engagement between hospitals, public health departments, and community-based organizations. These community health needs assessments have surfaced a range of community conditions beyond traditional biomedical diseases, such as food insecurity, community violence, and economic insecurity, that are of critical importance to individuals in the community and that many hospitals had not previously addressed in a major way.

The architects of the ACA expected that, as more Americans received coverage, hospital charity care spending would decrease, thereby allowing hospitals to reallocate community benefit investments to prevention and efforts to address social, economic, and behavioral needs. A shift of community benefit dollars to these types of activities has been confounded, however, by counterpressure from the ACA's tethering of subsidized exchange policies to plans whose high cost-sharing requirements drive up nonprofit hospital charity care spending. Reallocation of community benefit dollars away from charity care has also been limited by low Medicaid payment rates in many states.

DELIVERY SYSTEM AND INDUSTRY RESPONSES

Addressing social determinants has always been the focus of community health centers and many mission-based health systems. In the 1960s, Jack Geiger, the father of the community health center movement, famously wrote prescriptions for food for patients who presented with malnutrition.¹⁵ The chronic care model developed by Ed Wagner and colleagues identified a role for community resources and patients' social and economic context, factors that became more prominent in subsequent articulations of that model.¹⁶ Social determinants became mainstream in health care with 2 contemporaneous developments. The first was the growing use of "hot-spotting," an approach to identifying geographic clusters of patients with high levels of health care utilization and the socioeconomic factors driving those outcomes.¹⁷ The second development was the spread of the Institute for Healthcare Improvement's Triple Aim, 18 a model for health care transformation that focuses on the concurrent achievement of lower costs, better experience of care, and, most relevant here, improved population health.

The evolving policy environment only accelerated health care's focus on social determinants. According to one recent survey, health systems adopting value-based care models were more likely to report undertaking social needs-related activities such as social needs screening and connecting patients to community resources; the more value-based care activities hospitals reported undertaking, the more social needs activities they reported undertaking.¹⁹ As referenced in the article by Gusoff et al (page 22), the health care sector's broadening focus on social determinants is evidenced by the American Academy of Pediatrics' endorsement in 2015 of universal screening for food insecurity, the adoption of Z codes for documenting potential hazards owing to social circumstances in the International Classification of Diseases, Tenth Revision (ICD-10) coding system in 2016, and the recent policy statement on social needs from the American College of Physicians. Just this year, the American Hospital Association began its "Redefining the H" initiative, a campaign that endeavors to associate the ubiquitous blue and white "H" sign identifying a nearby hospital with communitywide efforts to address health more broadly.

As hospitals and other health care settings implement social determinants interventions, a common approach is social prescribing. These interventions include several core elements: Screening patients for unmet social needs; connecting patients who screen positive to a navigator, community health worker, or some other person who helps the patient set goals and identify needed resources; referral of the patient to community-based resources or public programs; and tracking to ensure resolution of the need. These core elements are incorporated in the care continuum for basic resource needs described by Steiner and colleagues (page 53).

Beyond these common features, health care interventions to address social needs vary along several key dimensions. ²¹ First, some interventions focus on high-risk patients such as predicted high utilizers or complex needs populations, whereas others focus on universal screening. Second, some interventions focus on addressing multiple needs and others target a single need

such as food insecurity or housing. Third, programs vary by the extent to which they focus solely on individual-level interventions or whether they include a focus on policy or system-level changes. For instance, the food insecurity intervention in Kaiser Permanente (KP) Colorado (KPCO)²² focused on connecting food-insecure patients to food programs and enrolling them in public benefits such as Supplemental Nutrition Assistance Program (SNAP) and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). That KPCO program also used aggregate-level data on food insecurity and patient stories to successfully advocate for a simplification of the state's SNAP application form, a change that helped drive up the percentage of Colorado's eligible patients who are enrolled in the program. Finally, social prescribing programs vary by the extent to which the health system builds internal capacity to perform these functions or relies on vendors with dedicated capabilities and specialized expertise.

As the health care sector has ramped up its activity in this area and as public policy and private payers increasingly incentivize or require such efforts, a large and dynamic set of organizations has emerged to meet this demand. Of special interest is the emergence of social needs intermediaries that serve as a bridge between health care organizations and community-based social service providers. Butler describes several different types of intermediaries.²³ Data intermediaries share data on the social needs of patients and households with health care organizations and social service providers to support intervention design and cross-sector coordination. Some of these firms also focus on the development of models using both clinical and nonclinical data to predict patients who may benefit from social needs interventions, thereby allowing health systems to better target their screening and intervention resources. Embedded extenders are organizations that health systems or health plans engage to screen patients for social needs and to connect them to community resources. In some cases, these intermediaries also develop narrow networks of social care providers that exchange data and share financial risk with health care providers. Finally, so-called budget blenders include backbone organizations serving Accountable Health Communities that braid and blend different sources of funding and pull together diverse organizations in a variety of collective impact models to deploy those resources.

Most intermediaries in this rapidly evolving component of the social needs sector curate local community resources. Using a combination of Web scraping (Internet data mining), call centers, machine learning, and user feedback, these vendors are replacing the static spreadsheets, word processing documents, and sticky pad notes affixed to computer screens that have long been used by frontline clinician to identify community resources. These vendors may also offer case/client management systems, advanced analytics and reporting, and integration with electronic health records.

Although this sector has primarily been occupied by niche players seeded by philanthropic investments, highly capitalized technology companies such as Alphabet Inc (Mountain View, CA), the parent company of Google, and IBM (Armonk, NY) have recently launched subsidiaries that may reorder the

marketplace. Meanwhile, Benetech (Palo Alto, CA), a nonprofit technology intermediary, is working with information and referral providers including county 211 systems and competing private vendors that curate competing community resource databases. The goal of the ServiceNet Initiative is to develop a collaborative approach to refreshing social service resource data, thereby lowering the costs and increasing the quality of that data, promoting community-level aggregation of social needs data to identify gaps and to design policy- and system-level interventions, and freeing resources and entrepreneurial energy to focus on other value-added services.

As the marketplace continues to evolve and a new set of actors enters the field, the social sector continues to be fragmented and inadequately funded. The organizations providing the bulk of social services today are, by and large, public or nonprofit agencies that do not typically have access to sufficient capital or ongoing revenue streams needed to play the role being asked of them. As these organizations seek to build their capabilities, there remains a risk of demand outstripping supply, with health care organizations putting substantial stress on the organizations on the receiving end of social needs referrals.

KAISER PERMANENTE'S APPROACH TO ADDRESSING SOCIAL NEEDS

The research reported in this supplement, and the organizational activity it represents, reflects a growing commitment in KP and other community-based delivery systems to address patients'social determinants of health. For health care providers, this commitment often begins with addressing unmet social, economic, and behavioral needs. KP's focus on social determinants is compelled by an organizational structure that integrates care, health insurance coverage, and community health functions, and a business model that creates economic incentives for prevention and upstream investments in health. In many respects, KP is a precursor to the current ACO movement, the "the original ACO."

KP's commitment to social interventions is heavily influenced by the organization's history. From its origins as an occupational health program in the shipyards dotting the West Coast during World War II, KP saw itself as a provider of social care, providing on-site child care and access to affordable healthy food and workforce housing. These investments reflected the imperatives and orientation of an employer intently focused on keeping its workforce healthy and productive. It also reflected the composition of its wartime workforce, which was heavily populated by women taking care of families and African Americans who had recently migrated to the West Coast from the South and Midwest. Addressing this population's social needs was a workforce health imperative, and it was vital to the success of America's war effort.

Over the years, KP's history, structure, and values promoted innovative approaches to clinical prevention and a broad definition of health. These approaches included early adoption of multiphasic health assessments, incorporation of health education as a standard Health Plan benefit, and, more recently, pioneering work in population health. These same drivers have led to the

deployment of community health initiatives that focus on health-promoting policy, systems, and environmental changes,²⁴ and an anchor strategy that leverages KP's major business assets to create healthy, thriving local economies. These initiatives have resulted in population-level improvements in food and physical-activity behaviors and other health-promoting community changes.²⁴

This orientation, along with the fact that approximately 30% of its 12.2 million members have household incomes less than 250% of the federal poverty level, have sharpened KP's focus on addressing members' social needs and the social determinants of health more broadly. In 2017, Health Plan and Medical Group leaders endorsed a vision statement declaring that "In partnership with communities, addressing members" most pressing human needs is an integral part of health care quality." Four key capacities were identified as being necessary to execute this vision: 1) a standardized approach to screening for social need and integration of that approach into appropriate workflows and care processes; 2) deployment of a nationwide, locally adapted social service resource locator to connect members to community resources; 3) partnerships with select community-based social needs providers and others to address the social determinants of health; and 4) a strategy to evaluate and scale social interventions when those interventions prove to be effective.

Most of the studies reported in this issue were produced by KP investigators associated with the Social Needs Network for Evaluation and Translation (SONNET). SONNET was developed by KP in 2017 to advance organizational learning about social needs interventions and to inform KP strategy in this area as well as in the field. Other articles in this supplement were written by members of the Social Interventions Research and Evaluation Network (SIREN). Housed at University of California, San Francisco and funded by KP and the Robert Wood Johnson Foundation, SIREN aims to bring together leading social needs researchers from across the country to help identify and close evidence gaps through collaborative research projects and to build consensus on common measures, metrics, and methods.

LOOKING FORWARD

Although the momentum to address social determinants of health is strong and growing, we are still in the early days of answering fundamental questions whose answers will be key to effectively and efficiently scaling social interventions in health care. These questions include: Which social needs interventions being delivered by health systems are working, and by what measures? Which patient populations should we focus on with what levels of resources to address people's unmet social needs, and what kind of outcomes is it reasonable to expect? What are the best roles for health care organizations and for their community partners in addressing those needs? What do we own as a health care system, when do we partner with others, and where is our best, highest purpose to advocate and support changes in systems or in public policy?

The articles in this supplement provide some early answers to these questions, as a stimulus to further evaluation and research in this important area. They also reflect a concerted effort by KP and its partners to build the evidence base in this area, even as caregivers feel a compelling and urgent need to respond to the pressing human needs they see day in and day out. Indeed, this special issue is a fulfillment of noted community-based research expert Larry Green's dictum that "if you want more evidence-based practice, you need more practice-based evidence." ❖

Disclosure Statement

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Your Brothers are Here

Even if it's a little thing, do something for those who have need of a man's help—something for which you get no pay but the privilege of doing it.

For, remember, you don't live in a world all your own. Your brothers are here, too.

— Albert Schweitzer, OM, 1875-1965, French-German theologian, philosopher, and physician